

CLAIMS:

1. A method of validating a coin which includes the steps of causing a collision between the coin and a surface, generating a signal indicative of resultant movement of the surface, identifying at least one time domain feature of the signal and making a validation decision based on at least one characteristic of the feature wherein the feature is defined by at least two points of inflection of the signal.
2. The method of claim 1 wherein said two points of inflection of the signal are each separated from succeeding points of inflection by at least a predetermined length.
3. The method of claim 2 which includes the step of identifying a plurality of features based on a plurality of predetermined lengths.
4. The method of claim 3 which includes the step of calculating an acceptance value for at least one feature used in the validation decision wherein the acceptance value is derived from measurements of change in amplitude and duration of the signal for the corresponding feature.

5. The method of claim 4 wherein the acceptance value is calculated for each feature which satisfies a validity test wherein the validity test is based on any one of:

- an average gradient of the signal over the duration of the
- 5 corresponding feature;
- a location of the corresponding feature in the time domain;
- a total length of the feature; or
- a time duration of the feature.

10 6. The method of claim 5 wherein each acceptance value is compared to at least one predetermined value, said comparison forming the basis for the validation.

7. The method of claim 6 wherein the acceptance value is

15 proportional to a length described by the signal for the corresponding feature.

8. The method of claim 6 or 7 wherein the acceptance value is inversely proportional to the square of the duration of the signal for the corresponding feature.

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9. The method of any preceding claim wherein a piezoelectric crystal is used to derive the signal.

10. A method of validating a coin which includes the steps of obtaining a signal from a collision of the coin and using features of the signal to determine coin validity where at least one parameter used in the identification of the features is dynamically variable.

11. A method of validating a coin which includes the steps of causing a collision between the coin and a surface and digitally sampling the resultant movement of the surface to produce a sequence of values which are analysed for discrimination purposes.

12. A method of validating a coin which includes the steps of analysing a signal and validating a coin on the basis of the signal analysis wherein the analysis is triggered by a trigger having a positive and a negative threshold which are independently variable.

13. A method of validating a coin which includes the steps of analysing a signal produced by a collision of a coin with a surface and terminating the analysis if either a valid coin is found or if a predetermined time has elapsed.

14. A coin validator arranged to operate by the method of any preceding claim.

15. A coin validator which includes a surface, means for
5 obtaining a signal from movement of the surface, means for digitally sampling the signal to obtain a sample and a processor which produces a sequence of values based on the sample and uses the values to validate a coin.

16. The coin validator of claim 15 wherein the signal is
10 generated by a piezoelectric crystal.